

Planta robusta 2–2.5 m. alta. Folia glauca planoconvexa ca. 10 mm. lata caulibus multum longiora. Spica feminea cinnamomea 20 mm. lata 20 cm. longa, floribus bracteolata, e spica mascula 1–5 cm. distans. Pollinis granula solitaria.

In brackish marshes: near Cape Henry, Va. (Tm. 3072); with *Myrica cerifera* and *Baccharis halimifolia* in marsh near Millstone (mouth of the Patuxent River), Md. (Tm. 5141) type material.

Typha glauca Godr., which was viewed as a hybrid between *T. angustifolia* and *T. latifolia* by Kronfeld, appears to lie between the two species. He characterized it as follows: *Planta robusta, 12–15 dm. alta. Spica masc. et fem. contiguae. Axis spicae masc. pilis linearibus sordido-albis instructus. Pollen.... Spica fem. castaneo-brunnea. Flores sine bracteolis; stigmata linearia pilos albos acutos superantia. Fructus.... Folia caulium floriferorum laminata, glauca, laminae planae, ad 10 mm. latae, inflorescentiam superantes.*

As pointed out by Kronfeld this form has the habit and ebracteolate flowers of *T. latifolia*, and the color of the spike and form of the stigma of *T. angustifolia*. I have never observed any plant of the above description. Our variety (*virginica*) has nothing in common with *T. latifolia* except the wide leaves. These however are *plano-convex* in cross-section as in typical *T. angustifolia*.

BUREAU OF PLANT INDUSTRY, Washington, D. C.

TWO LOST CARICES OF EASTERN MASSACHUSETTS.

M. L. FERNALD.

IN 1836, Dewey¹ described from near Boston two plants collected by B. D. Greene and preserved in the Torrey Herbarium, one as *Carex Greeniana* Dewey, the other taken to be *C. binervis* Smith, the latter said to be "probably introduced like *C. panicea*, from Europe; it is very like the *C. binervis* of Europe." Subsequently, it was generally stated that the plants which Dewey described were *C. helodes* Link (*C. laevigata* Smith) and *C. Hornschuchiana* Hoppe (*C. fulva* of Authors, not Good.), though, as indicated below, there has been

¹ Dewey, Am. Jour. Sci., xxx. 61 (1836).

much confusion in the exact interpretation of Dewey's types and consequently in the statements of which one is *C. helodes*, which *C. Hornschuchiana* — a perplexity to which Dewey himself contributed not a little. In 1845, in Wood's *Class Book*,¹ Dewey included both *C. binervis* and *C. Greeniana* with the statement that the latter "Resembles *C. pelva*, Good. [misprint for *C. fulva*], but differs in its fruit and glume." This statement (with *C. pelva* corrected to *C. fulva*) was repeated in subsequent issues of Wood's *Class Book* until 1861, when Dewey reversed the treatment,² changing to *C. fulva* Good. with the synonym "*C. binervis* Ed. 1," and *C. laevigata* Smith with the synonym "*C. Greeniana* Ed. 1" and the statement, "This and the last probably introduced from Eur."

Torrey, in his *Monograph of the North American Cyperaceae*,³ followed Dewey's original publication; but Carey, in Gray's *Manual*,⁴ taking his cue possibly from Dewey's statement in the early editions of Wood's *Class Book*, made *C. binervis* Dew., not Smith = *C. laevigata* Smith from "Massachusetts (Tewksbury? *B. D. Greene*): probably introduced"; while *C. Greeniana* Dew. was reduced to *C. fulva* and said to come from a "Pond at Tewksbury."

In the 2nd edition of the *Manual* however, Carey also reversed his treatment⁵ and made *C. Greeniana* (not *C. binervis* Dew.) synonymous with *C. laevigata*, and *C. binervis* Dew. synonymous with *C. fulva*; and this understanding of the matter was followed through the three succeeding editions of the *Manual*. In his monumental *Illustrations of the Genus Carex*, Francis Boott⁶ treated *C. Greeniana* Dew. as identical with *C. fulva*, and *C. binervis* Dewey as identical with *C. laevigata*; and Bailey, in his *Preliminary Synopsis of North American Carices*,⁷ followed Francis Boott and the earlier statements of Dewey in Wood's *Class Book* in treating *C. Greeniana* as *C. fulva*; and in a recent paper upon Newfoundland, Professor Wiegand and the writer,⁸ relying upon Boott's *Illustrations* and Bailey's *Synopsis*, spoke of *C. Greeniana* Dewey as probably a form of *C. Hornschuchiana* Hoppe (*C. fulva* Auct.). In discussing the Newfoundland and Anticosti

¹ Dewey in Wood, Cl. Bk. 424 (1845).

² Dewey in Wood, Cl. Bk. 764 (1861).

³ Torr. Ann. Lyc. Nat. Hist. N. Y. iii. 423, 424 (1836).

⁴ Carey in Gray, Man. 559 (1848).

⁵ Carey, l. c. ed. 2, 528 (1856).

⁶ Boott, Ill. Car. iv. 137, 163 (1867).

⁷ Bailey, Proc. Am. Acad. xxii. 112 (1886).

⁸ Fernald & Wiegand in Fernald, RHODORA, xiii, 130 (1911).

plant which we proposed as a new American variety of *C. Hornschuchiana* (var. *laurentiana* Fernald & Wiegand) we unfortunately overlooked a paper which was published by Mr. K. K. Mackenzie in 1910. In this paper Mr. Mackenzie had given a clear discussion¹ of the same plant (seen by him from Anticosti and Miquelon and identified with the Massachusetts plant of B. D. Greene which had often been called "*C. fulva*") and proposed it as a new species, *C. fulvescens*, with the suggestion that the specimen collected long ago by Greene near Boston was "possibly introduced through wild fowls from further north," and that the old report of *C. fulva* from Newfoundland arose from finding this species there.

In his discussion of *Carex fulvescens* Mackenzie points out that, in spite of the crisscross statements of Dewey, Carey, and others (including the present writer) in regard to the Greene plants, the specimen in the Torrey Herbarium "marked *Carex Greeniana* is a specimen of the European *Carex helodes* Link (*Carex laevigata* Smith) and has the long-acuminate or aristate scales of that species, in this agreeing with Dewey's description, which calls for a plant with cuspidate or mucronate scales." Thus, it may be concluded, the identity of Dewey's *C. Greeniana* is at last definitely and satisfactorily settled.

But the main object of these notes is to direct the attention of local botanists to the two plants, *C. helodes* Link (*C. laevigata* Smith) and *C. Hornschuchiana* Hoppe, var. *laurentiana* Fernald & Wiegand or *C. fulvescens* Mackenzie.² There is no evidence that either of these plants has been found in Massachusetts since their discovery by Greene. Whether *Carex helodes* (*C. laevigata*) was indigenous is questionable, since the species has not been found elsewhere on our side of the Atlantic. But the other plant (*C. Hornschuchiana*, var. *laurentiana* or *C. fulvescens*) which Mr. Mackenzie identifies without question with the Newfoundland, Miquelon and Anticosti plant, is strictly American and ordinarily separable by its larger perigynia and sharper scales from the Old World *C. Hornschuchiana*.

As already pointed out by the present writer³ and as previously surmised by Mackenzie, the plant was known to Goodenough in

¹ Mackenzie, Bull. Torr. Bot. Cl. xxxvii, 239-241 (1910).

² Whether the plant is to be considered an American variety of *C. Hornschuchiana*, which seems to Professor Wiegand and the writer the logical treatment of it, or a distinct species, as Mr. Mackenzie interprets it, is a minor question with perfectly sound reasons for either course.

³ Fernald, RHODORA, xiii. 130 (1911).

1794 "from *America* and *Newfoundland*." The basis for Goodenough's statement was long a mystery and we find the great Francis Boott, just before his death, still impressed with the fact, that "It is remarkable that Goodenough originally received *C. fulva* from America, and that the late Mr. B. D. Greene found it some years ago near Boston, and that no one has since met with it there or elsewhere in the States."¹ The occurrence of the plant in Newfoundland is now clearly demonstrated, and besides from there and the problematic station of B. D. Greene near Boston we know the plant also from bogs or boggy spots on Anticosti and Miquelon, but nowhere on the North American continent. That it has been found elsewhere there can be little question, since Goodenough's report of it from Newfoundland is now verified and he had also seen the plant "from *America*."

In the hope of determining with more exactness the stations where Greene had found his famous specimens the writer appealed to Dr. N. L. Britton, and in reply to these inquiries Mr. Mackenzie has kindly sent a full statement of the data found on the original sheets in the Torrey Herbarium; but unfortunately neither of the sheets indicates anything but "Boston B. D. Greene." Among Greene's own specimens at the Boston Society of Natural History Dr. J. A. Cushman has made a painstaking search and finds only one sheet: nothing to show for *C. helodes*, but a most important sheet of *C. Hornschuchiana*, var. *laurentiana*. This bears a small label through which the specimen is thrust, with the following in different inks but apparently all in Greene's hand: "*C. fulva*. B. D. Greene [followed by a space where a word is now torn out] but not *limosa* growing with it in pond at Tewks^y?" and in pencil after the last word (hand unidentified): "certè." The sheet bears also two papers with notes by Francis Boott and the penciled note of Dr. C. W. Swan: "The original specimen found by B. D. Greene at Tewksbury, Mass." Boott's comments are interesting though of no importance in settling the exact station: "These 3 plants I part with as a miser does gold entrusted to him. The Georgia one I suppose to be *C. Floridana*. . . . *C. fulva* & *C. laevigata* we owe to you & it behoves you to find them again. I take them to be *C. Greeniana* & *binervis* of Torrey [by which he obviously meant Dewey]."

The statement on Greene's label, that the plant grew with *Carex*

¹ Boott, Ill. Car. iv. 138 (1867).

limosa in a pond (presumably at Tewksbury) gives an important clue, for Tewksbury was one of B. D. Greene's great collecting grounds and he made its ponds and those of Andover famous. There he collected the types of *Juncus militaris* and *Utricularia resupinata*; and on the sandy and peaty margin of Round Pond are found many isolated northern colonies of Coastal Plain species: *Sagittaria Engelmanniana*, *Fuirena squarrosa*, *Xyris Smalliana*, etc. Round Pond has therefore been much visited and always furnishes good botanizing, even at the present time occasionally giving us new records. But the other pond of Tewksbury, Long Pond, is apparently little visited by botanists because its western side is bordered by an extensive quaking bog so deep and wet as to fatigue or drive away all but the most venturesome. Here, however, is the only known station in Middlesex County for *Carex limosa*! A specimen collected by B. D. Greene himself and labeled merely "Tewksbury" is in the Gray Herbarium, but material collected by William Boott on July 8, 1863 is marked "West side of Long Pond." No other station is cited in the *Middlesex Flora*, and it is obviously in this quaking bog or in the western margin of Long Pond, that we must seek the long-lost *C. Hornschuchiana* var. *laurentiana*. On June 17 last Mr. F. F. Forbes and the writer made a first attempt at rediscovery; but we were much too early, though we found young *C. limosa* in abundance. The traveling is difficult, consisting of waist-deep wallowing and tumbling, but by mid-July, when the prize *Carex* of the bog should be sought, traveling there may prove less formidable. At any rate the search is worth making and no effort should be spared to prove whether or not the almost forgotten plant still persists at Long Pond.

In view of the established occurrence of *Carex Hornschuchiana*, var. *laurentiana* in Newfoundland and its great rarity on our continent (found only at one of the ponds in Tewksbury) it is noteworthy that Haggett's Pond in Andover (lying just to the north of Long Pond) furnishes a case of somewhat similar distribution. By all means the most generally distributed grass upon Newfoundland is *Calamagrostis Pickeringii* and, though it is found locally upon our granitic mountains, it is known as a coastwise species only from Newfoundland, Cape Breton Island, and at a restricted station near the northern end of Haggett's Pond in Andover, a famous station discovered by Mr. John Robinson in 1879. It seems probable, then, that *Carex Hornschuchiana*, var. *laurentiana* like *Calamagrostis Pickeringii*, a plant

which at present finds its great development in the Newfoundland area but retains a tenuous hold at remote points in the line of its northward migration, is to be sought in Cape Breton and upon the mountains of northern New England and northern New York.

GRAY HERBARIUM.

REPORTS ON THE FLORA OF THE BOSTON
DISTRICT,— XIII.

CYPERACEAE.

CAREX, D TO K.

C. debilis Michx., var. **Rudgei** Bailey. Woods and swamps, common.

C. debilis Michx., var. **Rudgei** Bailey × **virescens** Muhl. Grove, Revere (*E. & C. E. Faxon*, June 10 to July 16, 1879–80; *H. A. Young*, June 17, 1879); Simpson Meadow, Campus, Wellesley (*K. M. Wiegand*, June 16, 1909).

C. deflexa Hornem. "Essex, Mass., . . . scarce," (Gray's Manual, 6th ed. 611, 1889, under var. *Deanei* Bailey); Blue Hill, Milton (*G. G. Kennedy*, May 27, 1910 and later).

C. Deweyana Schwein. Great Pastures, Salem (*J. H. Sears*, June 26, 1881); Roxbury (*J. A. Lowell*, June, 1846); Concord (*E. S. Hoar*, specimen in herb. of, according to Dame & Collins, Fl. Middlesex Co. 120, 1888).

C. diandra Schrank. Border of salt marsh, common, Newburyport (*F. F. Forbes*, June 14, 1903); Danvers (*J. H. Sears*, 1878); Beverly (*J. Robinson*, June 17, 1879); Boxford (*E. & C. E. Faxon*, June 20, 1878); bog, Lynnfield (*M. L. Fernald*, June, 1907); shore of Mud Pond, Natick (*K. M. Wiegand*, June 10, 1908); Wigwam Pond, Dedham (*C. E. Faxon*, May 26, 1878).

C. diandra Schrank, var. **ramosa** (Boott) Fernald. In brackish marsh, Newburyport (*F. F. Forbes*, June 13, 1903); Lexington (*E. Tuckerman*, no date); "wet meadow, head of pond, Fairy Land," Concord (*H. D. Thoreau*, June 30, —); open peat-bog, Sudbury